

MONDAY, JULY 31

word counting, text mining, sentiment analysis, tokenization,
lemmatization, stemming, stop words, TextBlob, spaCy, NLTK, sklearn

GROUPS OF 4

Find two text analysis pieces.

Do you think they're interesting?

Do you think they're worthwhile?

RULE NUMBER ONE

TEXT ANALYSIS IS GARBAGE

Word Clouds: Trump's Inaugural X
Jonathan

bluevirginia.us/2017/01/word-clouds-trumps-inaugural-speech-compared-obamas-bush-43-41-s-clintons-reagans-carters

Word Clouds: Trump's Inaugural Speech Compared to Obama's, Bush 43 & 41's, Clinton's, Reagan's, Carter's

By lowkell · January 20, 2017 · 4855 · 2

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I put together word clouds of the first inaugural addresses by Presidents Trump, Obama, Bush 43, Clinton, Bush 41, Reagan and Carter. To the extent word clouds are useful, you can definitely see some interesting similarities and differences between the speeches. Here are some quick observations...

Donald Trump's inaugural address: will go down in history as the infamous, hyper-nationalist, chest-thumping "America First" speech, I bet.

while forgotten Americans
make country countries
victories people nation's anyone
world heart government strength
same men capital way Earth follow triumphs
all borders seek power let back exists
glorious even done long right safe day
God United only whether industry jobs left time
nations years pain millions destiny
Obama oath America today workers
families bring good never factories moment because
foreign small own bless new now stops
great across Washington many ocean every

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David Toscano

House of Delegates
57th District
Charlottesville/Albemarle

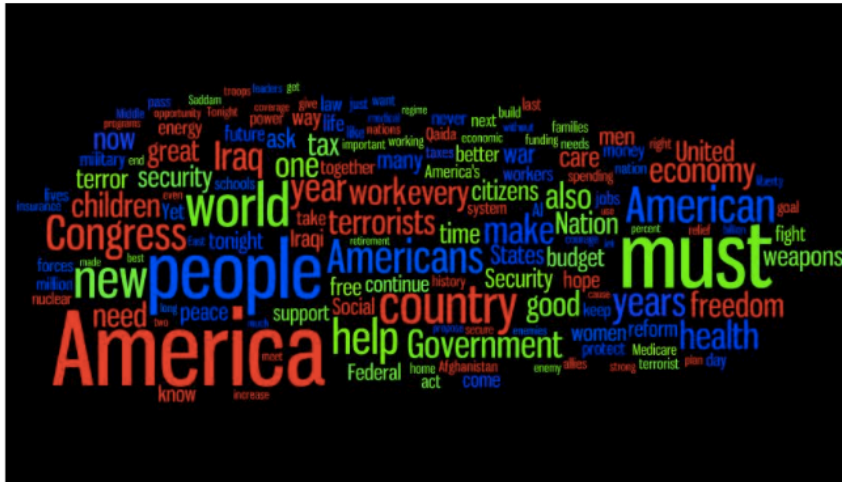
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PAID FOR BY TOSCANO FOR DELEGATE

2017 Virginia House of Delegates Candidates

Percent Clinton Vote by House of Delegates District She Won in 2016
(Note: 17 GOP-Held Districts Were Won by Clinton)

Words like “must,” “freedom,” “security,” “weapons,” “Iraq,” and “terror/terrorists” can all easily be spotted:



Compare that to President Barack Obama, who followed Bush and largely ran as the anti-Bush. Instead of war abroad, the most pressing issue for Obama was the economic imbroglio at home, The Great Recession. That's why "jobs" pops out in his word cloud

LOOKING FOR A
QUANTITATIVE SOLUTION
TO A
QUALITATIVE PROBLEM

PEOPLE

Understand subtleties

Understand context

Know history

Not so good at math

Not fast at counting

MACHINES

Not good at subtlety

Not good at context

Don't know history

Pretty good at math

Pretty fast at counting

SHOULD I USE A MACHINE?

I am writing a book review

I am reading a report

I am reading 1,000 3-page reports

I am reading 10,000 3-page reports

I am reading ten tweets

I am reading 1,000 tweets

I am reading a million tweets

BUT WAIT...
WHY ARE YOU READING
TWEETS?

Using 'Sentiment Analysis' To X

Jonathan

← → ↺

www.npr.org/2017/04/13/523709894/using-sentiment-analysis-to-understand-trumps-tweets

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Using 'Sentiment Analysis' To Understand Trump's Tweets

April 13, 2017 · 5:02 AM ET

Heard on Morning Edition

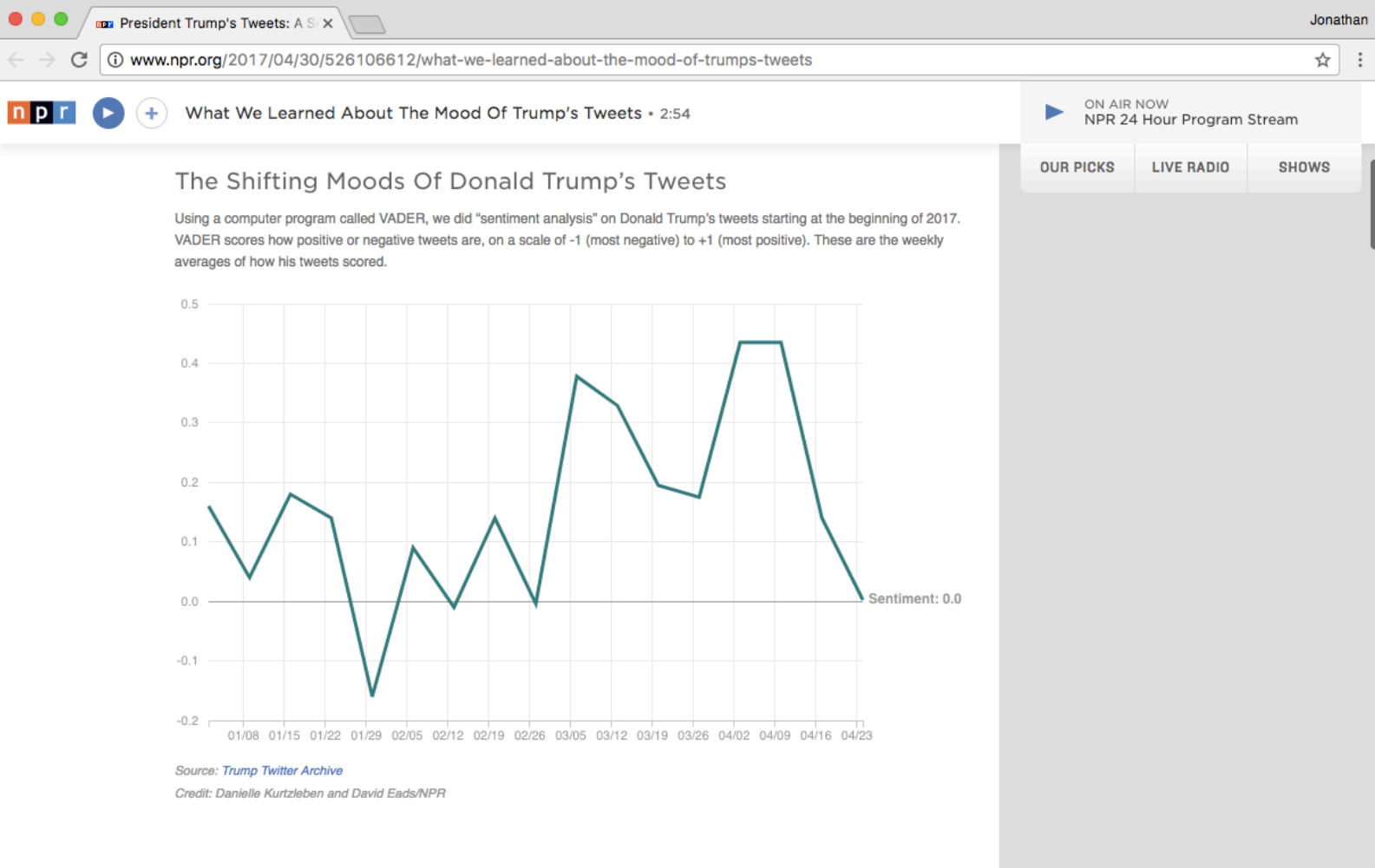
ALEX GOLDMARK

Planet Money tries to make a program that reads Donald Trump's tweets and then trades stocks. The first step is training the program to interpret the tweets using something called sentiment analysis.

Transcript

RACHEL MARTIN, HOST:

To Wall Street now where there is a shift afoot, a move to replace the humans who make investment decisions with computers. To understand this, our Planet Money



How Quant Traders Use Sentiment X

Jonathan


Secure https://www.forbes.com/sites/kumesharoomoogan/2015/08/06/how-quant-traders-use-sentiment-to-get-an-edge-on-the-market/#35481afe4b5d

Forbes

AUG 6, 2015 @ 03:36 PM 8,619


12 Stocks to Buy Now


How Quant Traders Use Sentiment To Get An Edge On The Market



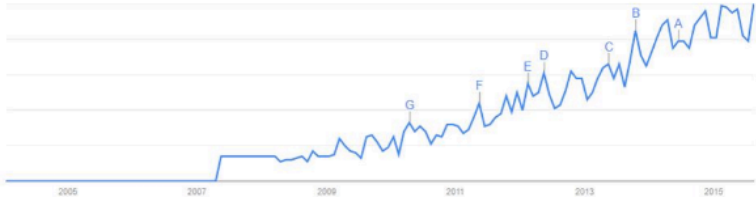
Kumesh Aroomoogan, CONTRIBUTOR
I write about Big Data, AI, and Quant Finance. [FULL BIO](#) ✓
Opinions expressed by Forbes Contributors are their own.

TWEET THIS

 Therefore the addition of sentiment as another short-term factor is like adding the airplane to cars and boats.

 Sentiment data is a perfect fit to our strategy, and it helps us achieve much stronger risk-adjusted performance, when layered into our previous data sources.

According to [Google Trends](#), the word “sentiment analysis” has been gaining steady traction over the past 5 years. Sentiment refers to the attitude expressed by an individual regarding a certain topic.



When it is applied to trading, sentiment can simply be used as a directional signal to figure out whether you should long or short stocks within your

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TRENDING



Best 25+ Unicorn birthday cal

Jonathan

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Unicorn Birthday Parties Unicorn Party >

Unicorn Birthday Cakes Unicorn Cakes >

Baby unicorn baby shower cake!

See More

Unicorn Cakes Do Exist and They're Downright Whimsical and Adorable

Privacy

JUST BE CAREFUL.

"COMPARED TO WHAT?"

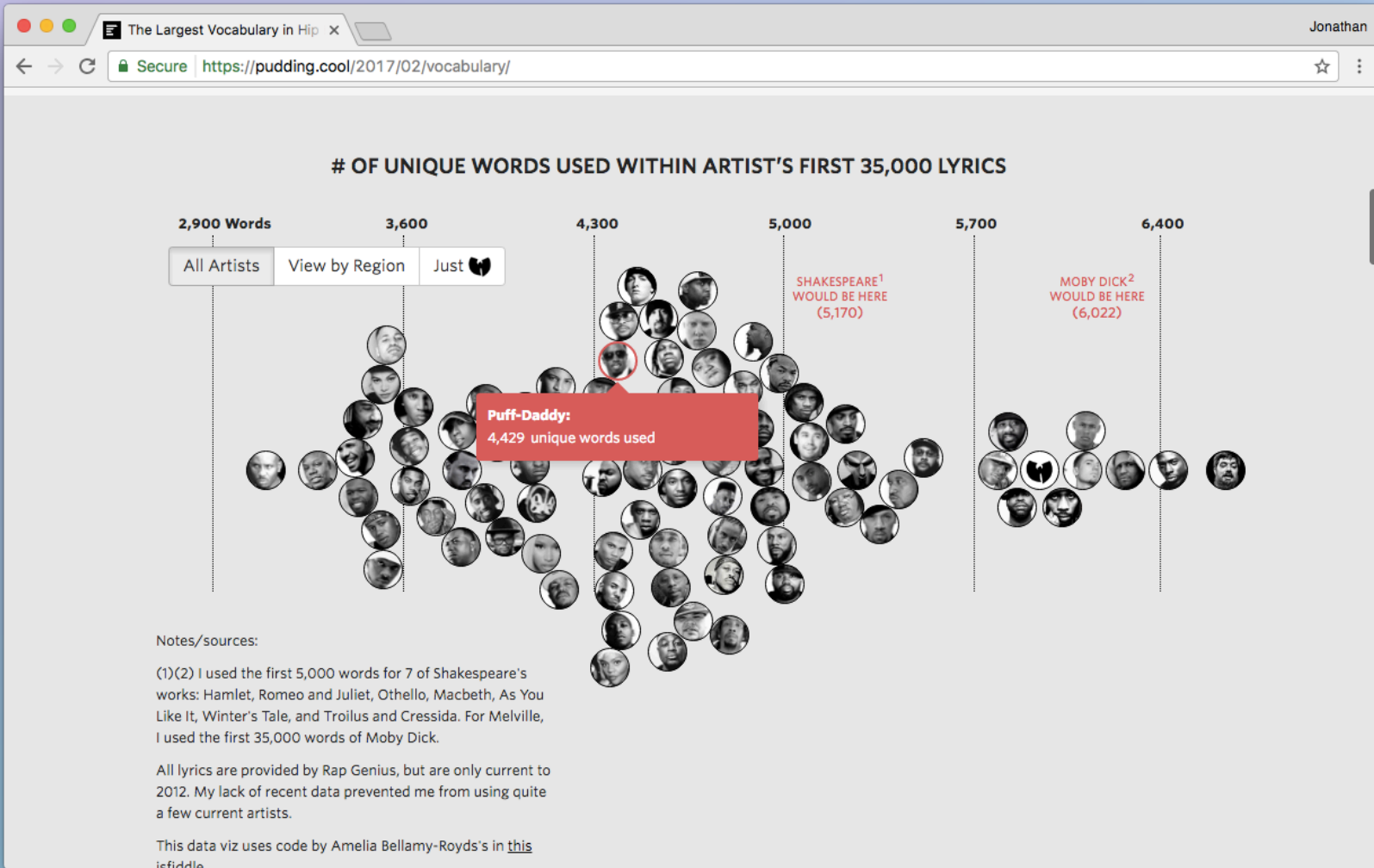
We're ignoring investigating pieces for now

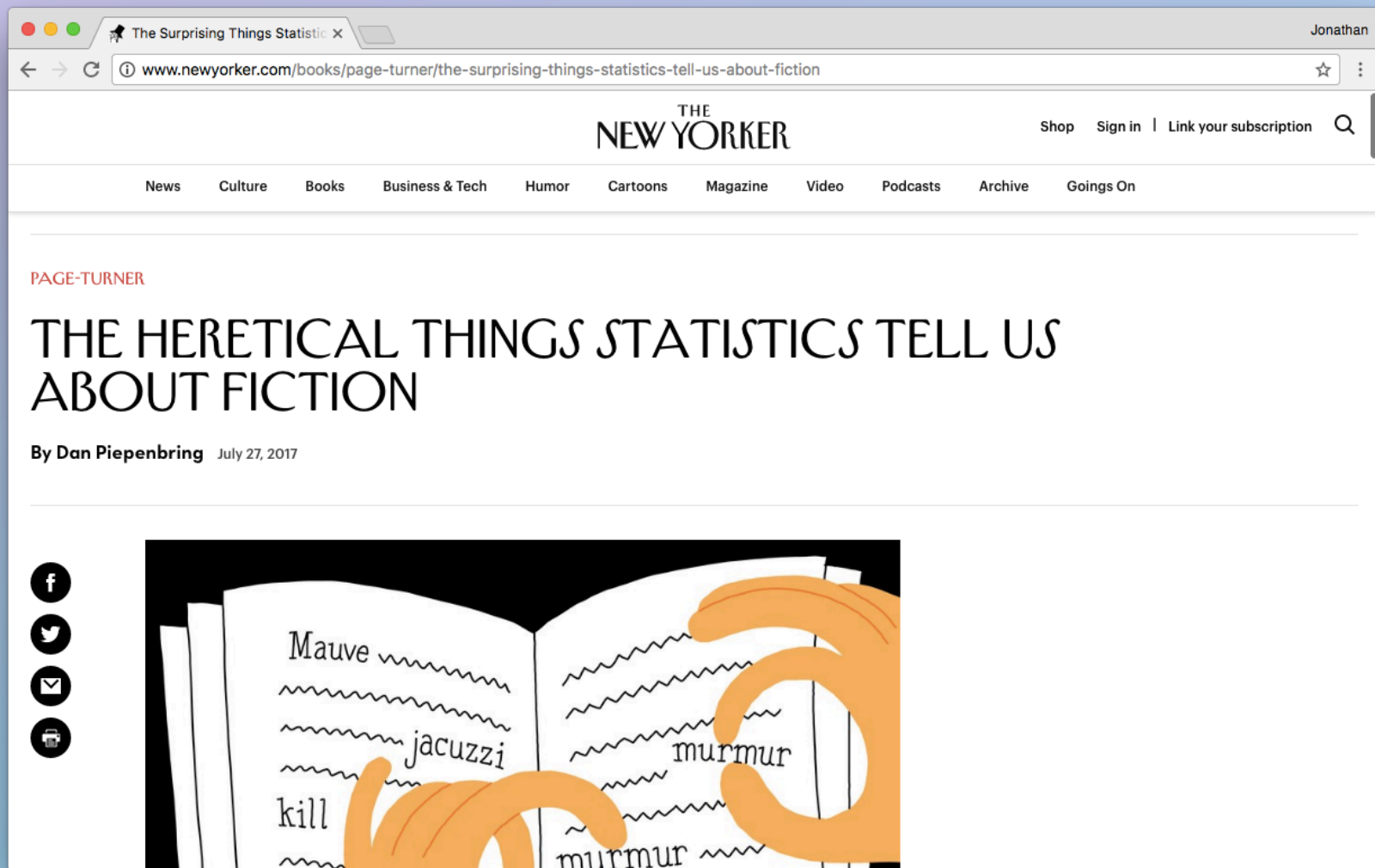
One group compared over time

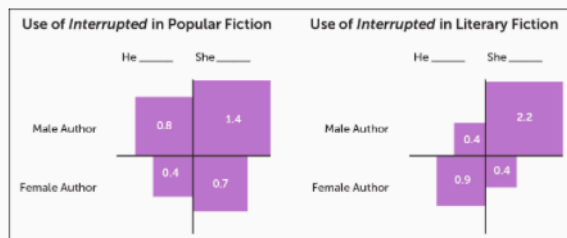
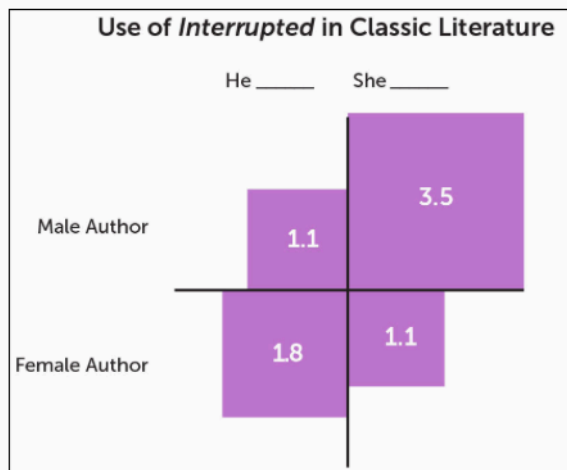
- State of the Union
- Song lyrics
- Novels

One category compared to another

- Trump speeches vs. Clinton speeches
- Hip hop lyrics vs. rock lyrics
- Books by women, books by men

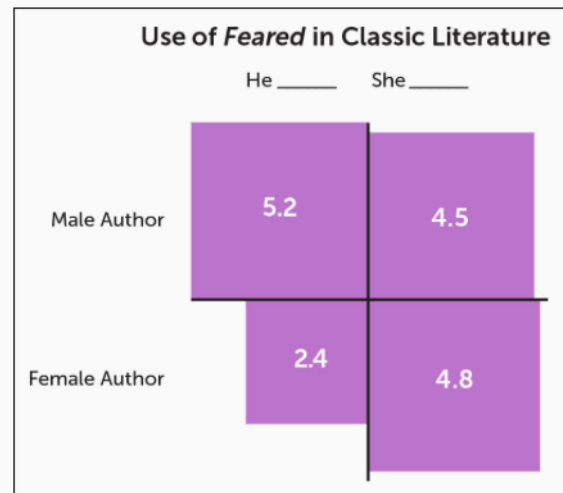


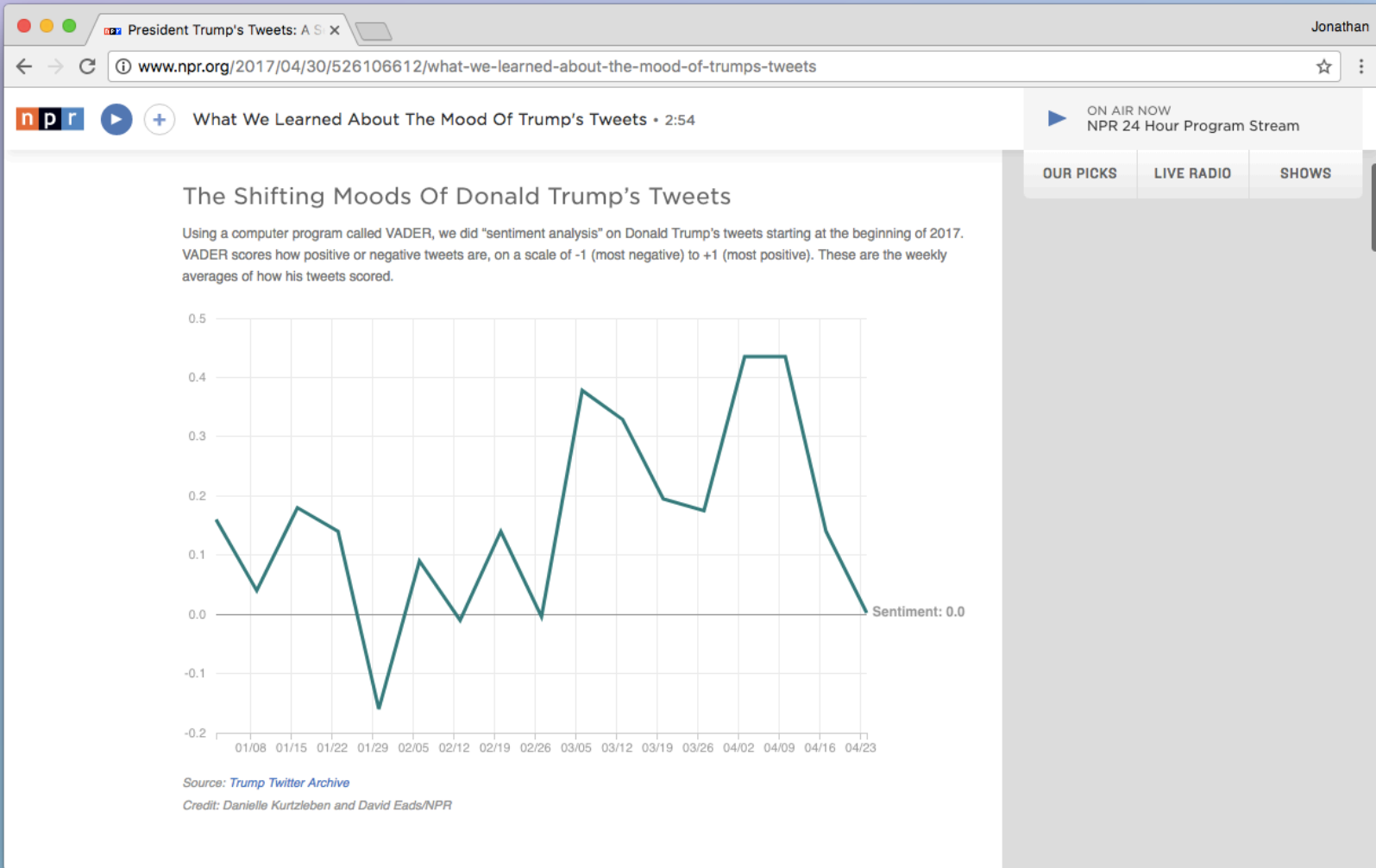


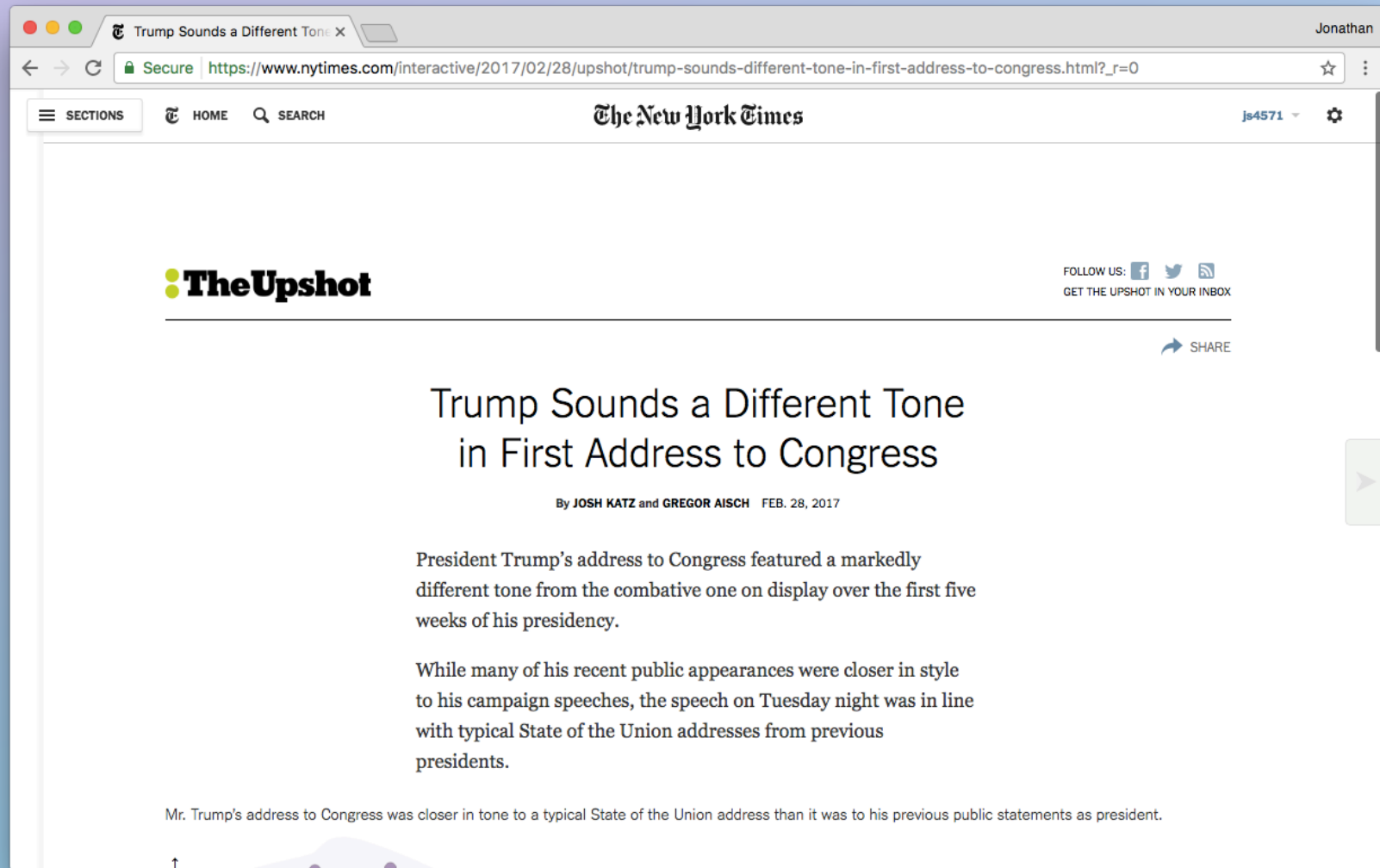


There are also a handful of words, in the sample of books examined, that authors rarely invoke when describing the

opposite sex. While men described all their characters as having fear, women assigned *fear* to their male characters significantly less often. See the chart below:







TheUpshot

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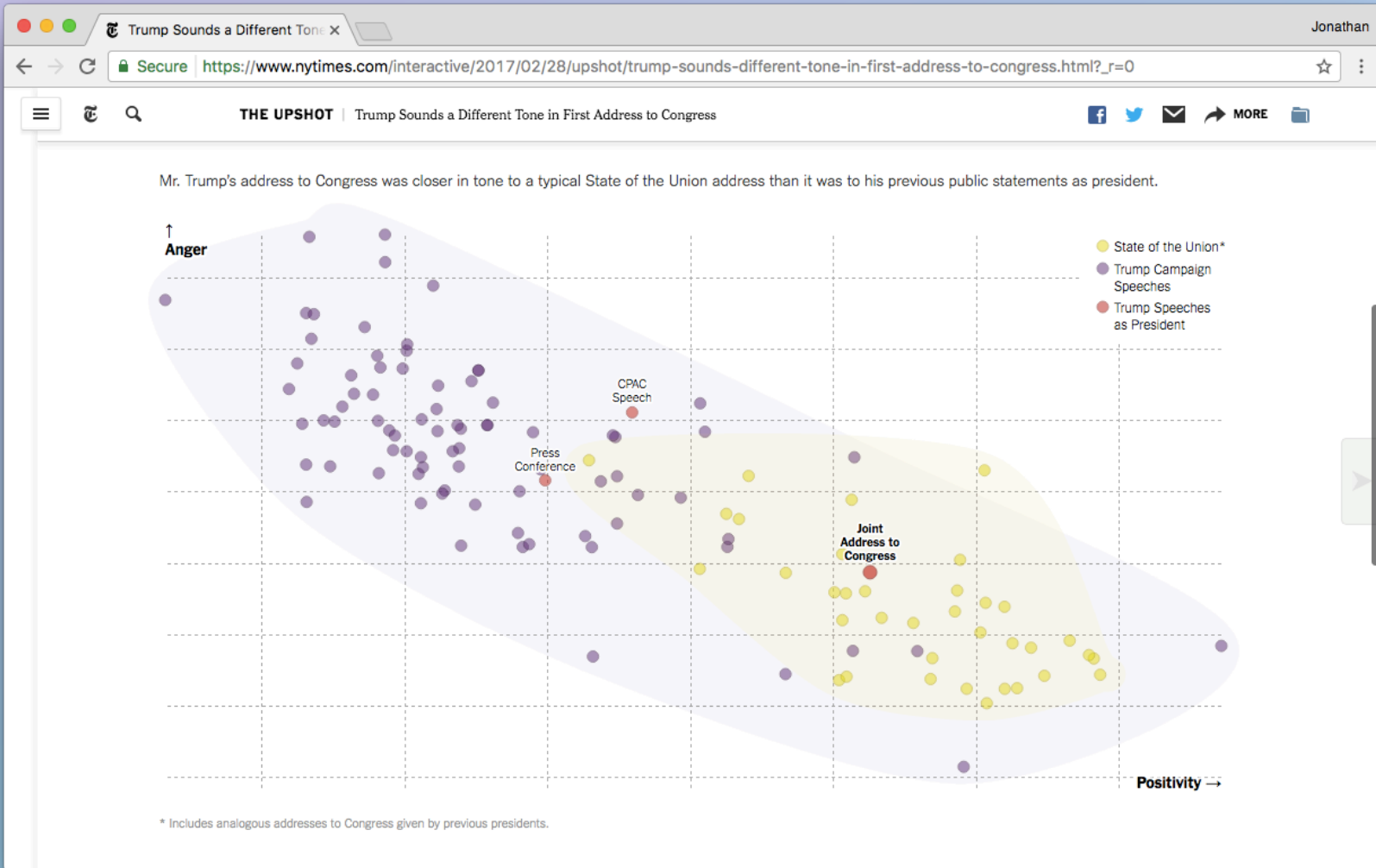
Trump Sounds a Different Tone in First Address to Congress

By JOSH KATZ and GREGOR AISCH FEB. 28, 2017

President Trump's address to Congress featured a markedly different tone from the combative one on display over the first five weeks of his presidency.

While many of his recent public appearances were closer in style to his campaign speeches, the speech on Tuesday night was in line with typical State of the Union addresses from previous presidents.

Mr. Trump's address to Congress was closer in tone to a typical State of the Union address than it was to his previous public statements as president.



GROUPS OF 4

For each of your pieces...

Do you think it's worthwhile/good?

- If it's good, pitch a way to apply it to another dataset
- If it's bad, pitch a way to improve it

LET'S DO THIS!

Download **05-text-analysis-zip** from **#algorithms**